Brian Schweitzer, Governor

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# ADMINISTRATIVE AMENDMENT TO MONTANA AIR QUALITY PERMIT

Date of Mailing: November 20, 2008

Name of Applicant: Knife River Corporation

Source: Portable Crushing/Screening Plant

Location: Various locations around Montana

<u>Proposed Action</u>: The Department of Environmental Quality (Department) proposes to issue an Administrative Amendment, with conditions, to the above-named permittee. The permit will be assigned #3867-01. The permittee may appeal the Department's decision to the Board of Environmental Review (Board). A request for hearing must be filed by December 5, 2008. This permit shall become final on December 6, 2008, unless the Board orders a stay on the permit.

**Proposed Conditions**: See attached.

<u>Procedures for Appeal</u>: The permittee may request a hearing before the Board. Any appeal must be filed before the final date stated above. The request for hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, Montana 59620.

For the Department,

Vickie Walsh

Vickie Walsh

Air Permitting Program Supervisor Air Resources Management Bureau

(406) 444-3490

Moriah Peck, P.E.

**Environmental Engineer** 

Morial Peck

Air Resources Management Bureau

(406) 444-4267

VW:MAP Enclosure

### AIR QUALITY PERMIT

Issued To: Knife River Corporation

P.O. Box 790

Missoula, MT 59806

Permit: #3867-01

Administrative Amendment (AA) Request Received: 1/24/08

Department's Decision on AA: 11/20/08

Permit Final: AFS #: 777-3867

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Knife River Corporation (Knife River) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

### A. Plant Location

Knife River will operate a portable crushing and screening facility initially located in the NW ¼ of the NW ¼ of Section 22, Township 29 North, Range 22 West in Flathead County, Montana. MAQP #3867-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*.

Addendum #2 applies to the Knife River facility while operating at any location in or within 10 km of certain  $PM_{10}$  nonattainment areas during the summer months (April 1 – September 30) and at sites approved by the Department during the winter months (October 1 – March 31), including the initial site location: NW ¼ of the NW ¼ of Section 22, Township 29 North, Range 22 West in Flathead County, Montana.

#### B. Current Permit Action

On January 24, 2008, the Department received a request to change the name on MAQP #3867-00 from JTL Group, Inc. to Knife River. The Department changed the name as requested and updated permit language and rule references to reflect current language and rule references.

### **SECTION II: Conditions and Limitations**

### A. Emission Limitations

- 1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) affected crusher shall not exhibit an opacity of 15% or greater averaged over 6-consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6-consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6-consecutive minutes (ARM 17.8.304).

- 4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
- 5. Knife River shall not cause or authorize to be discharged into the atmosphere from any street, road or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater (ARM 17.8.308 and ARM 17.8.752).
- 6. Knife River shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).
- 7. Knife River shall operate one crusher and the maximum rated design capacity of the crusher shall not exceed 180 tons per hour (TPH) (ARM 17.8.749).
- 8. Crushing production from the facility is limited to 1,576,800 tons during any rolling 12-month time period (ARM 17.8.749).
- 9. Knife River shall operate one screen and the maximum rated design capacity of the screen shall not exceed 300 TPH (ARM 17.8.749).
- 10. Screening production is limited to 2,628,000 tons during any rolling 12-month time period (ARM 17.8.749).
- 11. Knife River shall operate one diesel engine powered generator and the maximum rated design capacity of the diesel engine shall not exceed 325 horsepower (ARM 17.8.749).
- 12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Knife River, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
- 13. Knife River shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 14. Knife River shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

## B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be

performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, General Provisions and Subpart OOO).

- 2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures manual (ARM 17.8.106).
- 3. The Department may require further testing (ARM 17.8.105).

# C. Operational Reporting Requirements

- 1. If this crushing and screening facility is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
- 2. Knife River shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.
  - Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).
- 3. Knife River shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745 that would include *the addition of a new emissions unit*, a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
- 4. Knife River shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Knife River as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 5. Knife River shall document, by month, the crushing production from the facility. By the 25<sup>th</sup> day of each month, Knife River shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. Knife River shall document, by month, the screening production from the facility. By the 25<sup>th</sup> day of each month, Knife River shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

#### D. Notification

Knife River shall provide the Department with written notification of the actual start-up date of the new portable crushing and screening facility within 30 days after the actual start-up date (ARM 17.8.749).

### **SECTION III:** General Conditions

- A. Inspection Knife River shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Knife River fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Knife River of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Knife River may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

- H. Construction Commencement Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Knife River shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

## Permit Analysis Knife River Corporation Permit # 3867-01

### I. Introduction/Process Description

Knife River Corporation (Knife River) owns and operates a portable crushing/screening plant that operates in various locations around Montana. The original location was NW ¼ of the NW ¼ of Section 22, Township 29 North, Range 22 West in Flathead County, Montana.

### A. Permitted Equipment:

Knife River operates the following equipment:

- Cone Crusher (up to 180 tons per hour (TPH));
- Screen (up to 300 TPH);
- 325 horsepower (hp) diesel engine; and
- Other associated equipment.

## B. Source Description:

Knife River uses this crushing and screening facility to crush sand and gravel for use in various construction operations. For a typical operation setup, materials are loaded into the feeder, screened, and then crushed by the crusher. The material is separated by size and stockpiled.

### C. Permit History

On October 24, 2006, JTL Group, Inc. (JTL) was issued final **Montana Air Quality Permit (MAQP)** #3867-00 for the operation of a portable crushing and screening facility.

### D. Current Permit Action

On January 24, 2008, the Department of Environmental Quality (Department) received a request to change the permittee name from JTL to Knife River. The current permit action is an administrative amendment pursuant to Administrative Rules of Montana (ARM) 17.8.764 that changes the permittee name as requested. In addition, updates to the permit were made to reflect current rule references, permit language, permit format, and emissions factors, including correcting the permit to reflect the generator engine horsepower as opposed to the generator output in kilowatts (kW). MAQP #3867-01 replaces MAQP #3867-00.

#### E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

# II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARM and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

- A. ARM 17.8, Subchapter 1 General Provisions, including, but not limited to:
  - 1. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
  - 3. <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).
    - Knife River shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.
  - 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
  - 5. <u>ARM 17.8.111 Circumvention</u>. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.
- B. ARM 17.8, Subchapter 2 Ambient Air Quality, including, but not limited to:
  - 1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
  - 2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
  - 3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
  - 4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
  - 5. ARM 17.8.223 Ambient Air Quality Standard for particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>)

Knife River must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
  - 2. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and reasonable precautions must be taken to control emissions of airborne particulate matter. (2) Under this rule, Knife River shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
  - 3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
  - 4. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
  - 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
  - 6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
  - 7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.
    - a. <u>40 CFR 60, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NSPS Subpart as listed below.
    - b. 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, indicates that NSPS requirements apply to portable crushing/screening facilities with capacities greater than 150 tons per hour and that were constructed after August 31, 1983. Knife River has a capacity in excess of 150 TPH and was constructed after August 31, 1983; therefore, NSPS requirements apply to the facility.
    - c. <u>40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE)</u>, indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence

construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine. Since this permit is written in a de minimis-friendly manner, this regulation may apply to engines in the future.

- 8. <u>ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source</u>
  <u>Categories</u>. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
  - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPs) Subpart as listed below.
  - b. 40 CFR 63, Subpart ZZZZ National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, the diesel RICE at Knife River will be subject to this rule. However, although diesel RICE engines are an affected source, per 40 CFR 63.6590(b)(3) they do not have any requirements unless they are new or reconstructed after June 12, 2006. Any diesel RICE engine operated by Knife River that is new or reconstructed after June 12, 2006 will be subject to this Maximum Available Control Technology (MACT) standard if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Since the permit is written in a de minimis-friendly manner, area source provisions of the MACT requirements may apply to future engines.
- D. ARM 17.8, Subchapter 5 Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
  - 1. <u>ARM 17.8.504 Air Quality Permit Application Fees</u>. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
  - 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

- E. ARM 17.8, Subchapter 7 Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
  - 1. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Knife River has a PTE greater than 15 tons per year of particulate matter (PM) and oxides of nitrogen (NO<sub>x</sub>); therefore, an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  - 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes.</u> This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  - 5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.

    (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
  - 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  - 7. <u>ARM 17.8.752 Emission Control Requirements</u>. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
  - 8. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
  - 9. <u>ARM 17.8.756 Compliance with Other Requirements</u>. This rule states that nothing in the permit shall be construed as relieving Knife River of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

- 10. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
- 11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
- 12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
- 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
- 14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 Prevention of Significant Deterioration of Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
  - 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
    - a. PTE > 100 tons/year of any pollutant,
    - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule, or
    - c. PTE > 70 tons/year of  $PM_{10}$  in a serious  $PM_{10}$  nonattainment area.
  - ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3867-01 for Knife River, the following conclusions were made:
    - a. The facility's PTE is less than 100 tons/year for any pollutant.
    - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
    - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
    - d. This facility is subject to a current NSPS (40 CFR 60, Subpart OOO).
    - e. This facility may be subject to a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
    - f. This source is not a Title IV affected source or a solid waste combustion unit.
    - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Knife River will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Knife River will be required to obtain a Title V Operating Permit.

### III. BACT Determination

A BACT determination is required for each new or altered source. Knife River shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

# IV. Emission Inventory

Source	Tons/Year (TPY)					
	PM	$PM_{10}$	NO <sub>x</sub>	VOC	CO	$SO_x$
Crushing (180 TPH)	0.95	0.43				
Screening (300 TPH)	2.89	0.97				
Material Transfer (300 TPH, 2	0.37	0.12				
transfers)						
Truck Unloading (300 TPH)	0.13	0.13				
Pile Forming (300 TPH)	4.24	2.00				
Haul Roads	12.68	3.61				
Diesel Engine (325 hp)	3.13	3.13	44.13	3.57	9.51	2.92
Total	24.39	10.39	44.13	3.57	9.51	2.92

A complete emissions inventory is on file with the Department.

# V. Existing Air Quality

MAQP #3867-01 is issued for a portable crushing and screening facility to operate at various locations throughout Montana. This facility is allowed to operate at any areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding those counties that have a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas. A Missoula County air quality permit would be required for locations within Missoula County, Montana.

Addendum #2 applies to the Knife River crushing and screening facility while operating at any location in or within 10 km of  $PM_{10}$  nonattainment areas during the summer months (April 1 – September 30) and at sites approved by the Department during the winter months (October 1 – March 31), including the initial site location: NW  $\frac{1}{4}$  of the NW  $\frac{1}{4}$  of Section 22, Township 29 North, Range 22 West in Flathead County, Montana.

# VI. Air Quality Impacts

Based on the information provided by Knife River and the conditions established in MAQP #3867-01, the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standards. In addition, this source is portable and any air quality impacts would be minimal. Included in this permit are operational conditions and limitations that would protect air quality for this site and the surrounding area. Also, this facility is a portable source that would operate on an intermittent and temporary basis and any effects to air quality would be minor and short-lived.

# VI. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting
		private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private
		property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others,
		disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an
		easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and
		legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the
		property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic
		impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the
		property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible,
		waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the
		physical taking of adjacent property or property across a public way from the property in
		question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in
		response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b,
		7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## VII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared By: Moriah Peck, P.E.

Date: October 27, 2008

# Addendum #2 Knife River Corporation Permit #3867-01

An addendum to Montana Air Quality Permit (MAQP) #3867-01 is issued to Knife River Corporation (Knife River), pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

### I. Permitted Equipment

Knife River owns and operates a portable crushing and screening facility at various locations throughout Montana. This permit allows Knife River to operate a crusher (up to 180 tons/hour (TPH)), a screen (up to 300 TPH), conveyors and a diesel engine powered generator (up to 325 horsepower (hp)).

### II. Seasonal and Site Restrictions

Addendum #2 applies to the Knife River crushing and screening facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less  $(PM_{10})$  nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31), the only location(s) in or within 10 km of certain PM<sub>10</sub> nonattainment areas where Knife River may operate:
  - NW ¼ of the NW ¼ of Section 22, Township 29 North, Range 22 West (Initial Location)
  - NW ¼ of the NW ¼ of Section 22, Township 29 North, Range 21 West (Knife River Main Pit);
  - NE ¼ of the NE ¼ of Section 26, Township 29 North, Range 22 West (Tutvedt Pit);
  - NW ¼ of the SE ¼ of Section 36, Township 30 North, Range 21 West (County Pit);
  - SW <sup>1</sup>/<sub>4</sub> of SW <sup>1</sup>/<sub>4</sub> of Section 2, Township 28 North, Range 21 West (River);
  - SW ¼ of the NW ¼ of Section 2, Township 28 North, Range 21 West (River); and
  - Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).
- B. During the summer season (April 1-September 30), Knife River may operate at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM<sub>10</sub> nonattainment areas.
- C. Knife River shall comply with the limitations and conditions contained in Addendum #2 to MAQP #3867-01 while operating in or within 10 km of any of the previously identified PM<sub>10</sub> nonattainment areas. Addendum #2 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum #2 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

### III. Limitations and Conditions

- A. Operational Limitations and Conditions Winter and Summer Season
  - 1. All visible emissions from any crushing and screening plant shall not exhibit an opacity of 10% or greater averaged over 6-consecutive minutes (ARM 17.8.749).
  - 2. All visible emissions from any equipment, such as transfer points, shall not exhibit an opacity of 10% or greater averaged over 6-consecutive minutes (ARM 17.8.749 and 40 CFR 60, Subpart OOO).
  - 3. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections III.A.1, and III.A.2 (ARM 17.8.749).
  - 4. Knife River shall not cause or authorize to be discharged into the atmosphere from any street, road or parking lot any visible fugitive emissions that exhibit an opacity of 10% or greater (ARM 17.8.749).
  - 5. Knife River shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section III.A.4 (ARM 17.8.749).
  - 6. Knife River shall operate one crusher and the maximum rated design capacity of the crusher shall not exceed 180 TPH (ARM 17.8.749).
  - 7. Crushing production from the facility is limited to 4,320 tons during any rolling 24-hour time period (ARM 17.8.749).
  - 8. Knife River shall operate one screen and the maximum rated design capacity of the screen shall not exceed 300 TPH (ARM 17.8.749).
  - 9. Screening production is limited to 7,200 tons during any rolling 24-hour time period (ARM 17.8.749).
  - 10. Knife River shall operate one diesel engine powered generator and the maximum rated design capacity of the diesel engine shall not exceed 325 horsepower (ARM 17.8.749).
  - 11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Knife River, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

# B. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another nonattainment location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of

- publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
- 2. Production information for the sites covered by this addendum must be maintained for 5 years and submitted to the Department upon request. The information must include (ARM 17.8.749):
  - a. Tons of material crushed by each crusher at the site (including amount of recirculated/rerun material);
  - b. Tons of material screened by each screen at the site (including amount of recirculated/rerun material);
  - c. Tons of bulk material loaded at each site (production);
  - d. Daily hours of operation at each site;
  - e. Gallons of diesel fuel used by each generator at each site;
  - f. Hours of operation and sizes for each generator at each site;
  - g. Fugitive dust information consisting of the total miles drive on unpaved roads for all plant vehicles.
- 3. Knife River shall document, by day, the total crushing and screening production. Knife River shall sum the total production during the previous 24 hours to verify compliance with the limitations in Section III.A.7 and Section III.A.9. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).

## Addendum #2 Analysis Knife River Corporation Permit #3867-01

### I. Permitted Equipment

Knife River Corporation (Knife River) operates a portable crushing and screening facility at various locations throughout Montana. This permit allows Knife River to operate a crusher (up to 180 tons/hour (TPH)), screen (up to 300 TPH), conveyors and a diesel engine powered generator (up to 325 horsepower (hp)).

Addendum #2 applies to the Knife River crushing and screening facility while operating at any location in or within 10 km of PM<sub>10</sub> nonattainment areas during the summer months (April 1 – September 30) and at sites approved by the Department of Environmental Quality (Department) during the winter months (October 1 – March 31), including the initial site location: NW ¼ of the NW ¼ of Section 22, Township 29 North, Range 22 West in Flathead County, Montana.

# II. Source Description

Knife River uses this crushing and screening facility to crush sand and gravel for use in various construction operations. For a typical operation setup, materials are loaded into the feeder, screened for further reduction and then crushed by the crusher. The material is separated by size and stockpiled.

## III. Permit History

On October 24, 2006, JTL Group, Inc. (JTL) was issued final **Montana Air Quality Permit** (MAQP) #3867-00 for the operation of a portable crushing and screening facility.

## IV. Current Permit Action

On January 24, 2008, the Department received a request to change the permittee name from JTL to Knife River. The current permit action is an administrative amendment pursuant to Administrative Rules of Montana (ARM) 17.8.764 that changes the permittee name as requested. In addition, updates to the permit were made to reflect current rule references, permit language, permit format, and emissions factors, including correcting the permit to reflect the generator engine horsepower as opposed to the generator output in kilowatts (kW). MAQP #3867-01 replaces MAQP #3867-00.

## V. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARM and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

A. <u>ARM 17.8.749 Conditions for Issuance of Permit</u>. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this

subchapter. This rule also requires that the permit must contain conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

- B. <u>ARM 17.8.764 Administrative Amendment to Permit</u>. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase in emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. <u>ARM 17.8.765 Transfer of Permit</u>. An air quality permit may be transferred from one location to another if:
  - 1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;
  - 2. The source will operate in the new location for a period of less than 1 year; and
  - 3. The source will not have any significant impact on any nonattainment area or any Class I area.

### VI. Emission Inventory

Source		Lbs/day				
	PM	$PM_{10}$	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Crushing (180 TPH)	5.18	2.33				
Screening (300 TPH)	15.84	5.33				
Material Transfer (300 TPH, 2 transfers)	2.02	0.66				
Truck Unloading (300 TPH)	0.72	0.72				
Pile Forming (300 TPH)	23.22	10.98				
Haul Roads	69.50	19.76				
Diesel Engine (325 hp)	17.16	17.16	241.80	19.58	52.10	15.99
Total	133.64	56.95	241.80	19.58	52.10	15.99

A complete emissions inventory is on file with the Department.

## VII. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for  $PM_{10}$ . Due to exceedances of the national standards for  $PM_{10}$ , the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for  $PM_{10}$ . As a result of this designation, EPA required the Department and the City-County Health Departments to submit  $PM_{10}$  State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies identified these sources to be the major contributors to  $PM_{10}$  emissions.

MAQP #3867-01 and Addendum #2 are for a portable crushing and screening facility that will locate at sites in or within 10 km of certain  $PM_{10}$  nonattainment areas. The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the NAAQS. Also, this facility is a portable source that would operate on an intermittent and temporary basis and any effects on air quality would be minor and short-lived.

### VIII. Air Quality Impacts

MAQP #3867-01 and Addendum #2 will cover the operations of this portable crushing and screening facility while operating at any location within Montana, excluding those counties that have a Department approved permitting program and those areas that are tribal lands.

Addendum #2 will cover the operations of this portable crushing and screening facility, while operating in or within 10 km of certain  $PM_{10}$  nonattainment areas during the winter season (October 1 through March 31). Winter season operations many include only the locations listed in Section II.A of Addendum #2. Additionally, the facility will also be allowed to operate in or with 10 km of  $PM_{10}$  nonattainment areas during the summer months (April 1 through September 30).

### IX. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting
		private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private
		property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others,
		disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an
		easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and
		legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the
		property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic
		impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the
		property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible,
		waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the
		physical taking of adjacent property or property across a public way from the property in
		question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in
		response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b,
		7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

# X. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared By: Moriah Peck, P.E.

Date: October 27, 2008